

Considerations for countries on targeting Gavi investments to achieve immunisation outcomes

Focus area	Urban immunisation
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Why invest in urban immunisation?

Although immunisation coverage rates are usually higher in urban areas than in rural areas, evidence shows the largest number of un- and under-immunised children often reside in urban slums. Further, urban slum areas lack access to basic services (primary health care, water and sanitation) and are densely-populated – creating an additional risk for disease outbreaks and a high impact environment for immunisation. Improving routine immunisation in the urban population is an essential element to address immunisation coverage and equity, for a number of reasons:

- By 2050, 66 per cent of the world’s population is projected to be living in urban areas;
- Some of the poorest communities reside in the urban slums on the margins of large cities;
- Rural communities were previously the focus of hard-to-reach strategies, which now need further adaptation to urban environments;
- Strengthening urban immunisation programmes is an opportunity to bring integrated preventative services to urban communities.

What are the key considerations when planning investments in urban immunisation?

In order to identify and address service delivery and demand challenges in urban areas; country stakeholders and programmes should consider:

- **Country engagement** on the issue of urban immunisation with a focus on underserved areas;
- **Development of evidence** regarding under-/un-immunised children living in urban areas; particularly urban slums. This includes information on population demographics and mobile and transient populations;
- A **review or analysis of service delivery availability** in urban poor areas and **bottlenecks to access** existing immunisation services;
- The **creation of innovative approaches** to tailor demand and service delivery interventions to address urban immunisation disparities;
- **Development of monitoring tools and concurrent evaluation** of the progress are planned well in advance to allow for adjustments and course corrections as required.

What are the key investment elements?

Depending on the country context, different elements of Gavi support can improve service delivery. These include:

Vaccine introductions and campaigns: Additional funding for microplanning in large cities; development of specific communications strategies for large urban environments (i.e. mapping of high risk populations, during post-campaign evaluations identification of urban areas where missed children live, establishment of denominator, mapping of strengths/weaknesses of supply system which can be used for RI).

Health system strengthening: Consideration of prioritisation of data systems/child registry and tracking systems; Supply chain and management support for the contracting of private and non-governmental sector providers; Improvement of micro plan development in priority urban areas; Adaptation of data collection tools to include urban slums, collection of information on demand to inform strategy development/improvements; Urban specific research in communication; Equity surveys; Development of specific demand research and implementation plans; Development of partnerships beyond health to expand reach of immunisation and PHC; Provision of supply chain for private sector providers.

Technical assistance: Mapping of urban environments (service delivery points, health workforce,); Equity surveys; Development of tailored plans for specific urban areas.

What are potential measurement metrics related to urban immunisation?

<p>Outcome indicators</p>	<ul style="list-style-type: none"> • Percentage of children aged between 12-23 month old in targeted city who are fully immunised (with granularity to urban poor/slum areas); • Number of additional children aged 0-11 months in defined urban communities who have received the 3rd recommended dose of pentavalent vaccine; • Percentage of zero-dose children in target city who have received their overdue vaccines within one month of being identified by the Polio team.
<p>Process indicators</p>	<ul style="list-style-type: none"> • Total number of facilities offering immunisation services, as part of an integrated service package in defined urban area; • Percentage of planned outreach sessions, conducted as part of an integrated service package, for urban communities that have been completed; • Number of communication strategies used to share information on immunisation with parents living in urban poor communities; • Number of quality semi-annual reports that examine progress achieved in implementing the urban strategy and provide course correction measures.

1 Targeting investments for Gavi’s HSIS support

1.1 Brief description of the focus area

Across the Alliance, there is increased recognition of the need to develop targeted approaches and investments to improve immunisation delivery in urban slums. Although aggregated immunisation coverage in urban areas is usually higher than in rural areas, evidence shows that when urban data are disaggregated coverage among the urban poorest is frequently lower than the rural average with the largest number of un- and under-immunised children often residing in slum environments. These disparities afflicting the urban poor are further exacerbated by lack of access to basic services (primary health care, water and sanitation) and by high population density – creating an additional risk for disease outbreaks.

The issue of inequitable urban immunisation coverage requires leadership and innovation as current strategies for reaching the hard-to-reach are often tailored to rural contexts. The potential benefits of strengthening immunisation programmes in urban areas go beyond immunisation and include the opportunity to integrate preventative services to serve as an entry point for access to the health system.

These were among the considerations that led Gavi to prioritise urban slums and to better understand for how the Alliance support can strengthen immunisation programmes to deliver immunisation to every child in urban areas. For example, during 2016-2018, initiatives to improve urban immunisation outcomes were launched in Senegal, Madagascar, Pakistan and Haiti and work was planned in Chad, DRC, Bangladesh, Kyrgyzstan and Indonesia.

This programming guidance reflects early learnings and will be updated as new approaches are implemented and monitored. Additional technical material is available in the attached in **Section 6**.

There are a number of challenges to attaining equitable immunisation coverage in an urban environment. Many common bottlenecks to improving service delivery in rural areas are also present in urban settings, however, some challenges are unique to urban or are further exacerbated as outlined in *Table 1*.

Table 1: Challenges to attaining equitable immunisation coverage in an urban environment

<p>Relatively unique to urban environments</p>	<ul style="list-style-type: none"> - Lack of public sector facilities and community health workers (outside of large hospitals) - Presence of private sector physicians and pharmacies - Lack of government recognition of urban slums and its commitment to provision of services - High population density - People seek health services across different health facilities and service providers, instead of a single location - Demand generation and communication strategies have to be different from regular activities
<p>Exacerbated in urban areas</p>	<ul style="list-style-type: none"> - Lack of formal addresses – challenge of mapping multi-story housing - Lack of up-to-date maps and government planning documents - Poor data availability on population demographics, including different sections of the city - Presence of dynamic/mobile population from nearby towns and villages - Diverse population, complicating the creation of appropriate demand materials and targeted health messaging - Caregivers may have jobs which limit the time when they can seek health services - Access challenges for health workers due to security issues - Unclear jurisdictions between facilities including some communities overlooked entirely, complicated by the multiple administrative mechanisms within the same city - Community leadership and dynamics may be complex and dynamic, limiting engagement by health providers

1.2 Service delivery approaches to meet challenges and uniqueness of hard-to-reach neighborhoods in urban areas

Tailored service delivery approaches have included the mobile vaccination clinics, Periodic Intensification of Routine Immunisation (PIRI), the placement of MoH vaccinators in private facilities, the subcontracting of private hospitals and pharmacies and the placement of additional cold chain and human resources (e.g. contracting retired health workers living in the area to provide services) in urban slums to increase services delivery points. Other solutions include establishing vaccination sites in markets and churches, changing timings of the services to enable working mothers to attend and introducing electronic immunisation registers/child health cards. **Section 6.2** contains country examples and **Section 6.3** contains piloted tools for developing tailored approaches with country stakeholders.

Sustained improvements in coverage and equity will require a mix of supply and demand side interventions, tailored to the specific urban contexts. Due to the highly complex political and socio-economic structure of cities, qualitative and quantitative information on delivery and demand bottlenecks is deemed important to inform conversations around a change in (or establishment of) a service delivery model with in-country stakeholders.

1.3 Leveraging Gavi support for equitable immunisation coverage in urban areas

Through all Strategic Focus Areas (SFAs), which include immunisation supply chains; data quality, availability and use; in-country leadership, management and coordination; demand promotion; in-country political will; and financial and programmatic sustainability there are opportunities to review the approach to grant implementation and adjust to include an improved focus on improving immunisation coverage and equity in urban areas. To date, some Gavi countries have used the provisions of HSIS support, included specific approaches to reach urban disadvantaged populations in PEF TCA, and contracted expanded partners and CSOs for urban analysis and service delivery. *Table 2* outlines some considerations for identifying opportunities to address bottlenecks specific to delivering immunisation services in urban areas especially in slum environments.

Table 2: Potential Gavi support for tailored approaches to improve immunisation coverage and equity in urban areas

Category	Examples	Funding Resources
Campaigns/ Vaccine launches	<ul style="list-style-type: none"> - Additional funding for microplanning in large cities; - Development of specific communications strategies for large urban environments (i.e. map out high risk populations, during post-campaign evaluations find out urban areas missed and where missed children live, establish denominator, map; - Strengths/weaknesses of supply chain. 	Operational cost support; Vaccine Introduction grants
Service delivery	<ul style="list-style-type: none"> - Consider prioritisation of data systems/child registry and tracking software; - Supply chain and management support for the contracting of private and non-governmental sector providers; - Improving micro plan development in priority urban areas; - Adapting data collection tools to include urban slums, collection of information on demand to inform strategy development/improvements; - Urban specific research in communication; 	Health system strengthening support (HSS); Cold chain equipment optimisation platform (CCEOP), Targeted country assistance (TCA) under Gavi's partners

	<ul style="list-style-type: none"> - Equity surveys; - Development of specific demand research and implementation plans; - Build partnerships beyond health to expand reach of immunisation and PHC; 	engagement framework (PEF)
Supply chain	<ul style="list-style-type: none"> - Supply chain for private sector providers; - Position ODP to address areas of vulnerability in urban areas. 	HSS; CCE OP
Technical assistance	<ul style="list-style-type: none"> - Mapping of urban environments (service delivery points, health workforce,); - Equity surveys; - Development of tailored plans for specific urban areas. 	HSS; PEF TCA
Data systems	<ul style="list-style-type: none"> - Micro census; - Urban specific surveys; - EIR to facilitate tracking of children in the immunisation system. 	HSS; PEF TCA

1.4 Development of country dialogue around improving coverage and equity of immunisation in urban areas, especially in urban poor communities

The rate of urbanisation especially in Africa and Asia has outpaced the development of basic services and sufficient urban planning. It is projected that by 2050, 70% of the world's population will be living in the urban areas. The reasons for the absence of many of the basic services, including primary health care, in urban slums can be political, social or physical. Urban slums may not receive recognition from local authorities as an area requiring services. Communities residing in slums can be politically marginalised or lack sufficient representation (e.g. economic migrants, refugees, religious minorities). In this regard, the engagement of country governments requires significant dialogue and the production of evidence and incentives for improving immunisation coverage in urban areas. Evidence, still under development in certain contexts includes: cost effectiveness of delivering immunisation services in urban areas and the potential increased impact of vaccination in densely populated areas.

It is recognised that engagement of non-traditional immunisation partners is important while seeking country engagement in urban slums; including the involvement of urban poor communities in the planning of immunisation services. Additional stakeholders include: professional bodies, development agencies working for Nutrition/WASH and civil society organisations serving marginalised communities in cities.

1.5 Using data to inform decision making and immunisation programme planning, implementation and monitoring in urban areas/slums

The generation of data as evidence for the prioritisation of urban underserved populations immunisation strategies is critical to the development of tailored strategies and in tracking and measuring the impact of investments. Strategies for the development of data in urban settings are outlined in *Table 3*.

Table 3: Generating evidence for tailored urban immunisation delivery

Evidence from existing data collection tools	<ul style="list-style-type: none"> - Coverage: By smallest administrative or management area; Census data as available; - Equity: Socio-economic and female literacy (e.g. from recent DHS); - Existing micro plans (Routine immunisation or polio); - Total children immunised, doses administered and coverage surveys (i.e.
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	<p>numerator-based data to avoid imprecise denominator for marginalised populations);</p> <ul style="list-style-type: none"> - Powering existing coverage surveys for higher precision in urban environments; - Use of data from other programmes such as nutrition, WASH etc.
<i>Collecting additional quantitative data</i>	<ul style="list-style-type: none"> - Mapping: e.g. Government maps or lists of public, CSO and private facilities; GIS (satellite) or GIS (phone) mapping; Cold chain equipment locations; - Using identifiers for urban slums in coverage surveys/micro census; - Adding gender and other information to existing child registries;
<i>Collection of qualitative information</i>	<ul style="list-style-type: none"> - Identification of mobile and migrant populations and barriers to seeking care, - Key informant interviews and focus groups, including through CSOs; - Engagement of new stakeholders (e.g. other Ministries for sanitation, WASH, MNCH, nutrition, urban planning and housing).

2 Information repositories

2.1 Online reference documents

- [Immunization, urbanization and slums - a systematic review of factors and interventions](#) BMC Public Health. 2017 Jun 8;17(1):556. doi: 10.1186/s12889-017-4473-7.
- [Missed Opportunities for Vaccination](#) (MOV) toolkit, WHO
- [RED/REC guidance](#), WHO
- Urban toolkit, Unicef (pending release in 2018)

2.2 Country case-studies

Haiti

Background: Haiti has been struggling to increase its DTP3 coverage above 68% since it peaked in 2013 (2014: 48%; 2015: 60%, 2016: 58% (WUENIC) and important equity issues, including with respect to vaccination rates in urban slums, affect the access of underserved populations in urban settings (especially urban slums/provincial capitals). The EPI manager requested that further analysis be done to focus on coverage and equity in urban slums, especially those with high security concerns that are not accessed by Alliance partners (e.g. Cite Soleil) and an action plan to address C&E issues was drawn up in Q1 2016 and started being implemented in Q4 2016, based on the initial coverage and equity desk review and consultations in the country.

Intervention: JSI was contracted through PEF TCA as an expanded partner to provide technical assistance to diagnose challenges and develop interventions and solutions to improve C&E in urban slums with high security concerns (such as Cite Soleil), specifically targeting areas of low coverage. The JSI diagnosis led to a pilot of different strategies and interventions such as improved management and mentoring from EPI to local health workers, reorganisation of vaccination services, better management of vaccine supply, higher community engagement to increase demand and improved monitoring and supervision to address issues.

Results: Initial results of the JSI urban interventions led to an observed increase in vaccine coverage (10 percentage points on average) during the first half of 2017, compared to 2016 coverage (preliminary administrative data). The preliminary report indicates that Cité Soleil, for the first time in years, reached a DTP3 coverage above 50%. The lessons learnt from the JSI pilot strategies will be used to scale up similar interventions in targeted districts with the highest number of un/under-immunised children (over 60% of these being in only 3 provinces, in predominantly urban settings).

Senegal

Background: Senegal is a high performing country, but according to WUENIC estimates, coverage for Penta3 has stagnated at around 90% in the last strategic period. A 2013 DHS confirmed unequal access to vaccination services by poorer quintiles, in some rural areas and urban populations. The Minister of Health noted the low coverage and has catalysed targeted interventions in low coverage areas across Senegal. In particular, the Minister noted the concentration of under-immunised children in urban Dakar and, with support from Alliance partners, catalysed intensified efforts in second half of 2016 to improve services.

Intervention: Bottlenecks, including in urban settings, included lack of personnel in health facilities with high volume activity, unclear target population (new dwelling areas with unregistered population), areas with difficult access (due to e.g. insecurity), immunisation resistance in certain communities, and limited integration of private sector (e.g. lack of reporting/data lost). Alliance partners designed a recovery plan to reach the under-immunised children in urban areas. Dakar (25% of the national cohort, equalling 120,000, of which 24,000 were under immunised) was identified as the key focus for the recovery plan. The HSS grant was targeted in late 2016 to finance scalable investments to address bottlenecks, including increasing the reach of fixed vaccination networks in urban setting and community demand. As part of the HSS grant new strategies for service delivery in urban areas were developed and implemented, such as: night and week-end immunisation, vaccination at markets and train stations, mobile strategies, and special immunisation days. The private sector was engaged to expand services with more rigorous data reporting. Children dropping out and not returning for second or third doses were followed-up systematically.

Results: 16,178 (67%) of the 24,000 children lost to follow up in Dakar were vaccinated. In 2016, vaccination coverage in Dakar increased by: Pentavalent 5% points, MCV1 8% points, MCV2 19% points. These investments contributed to nationwide increases from Penta 3 coverage of 89% in 2015 to 93% in 2016, and MCV2 from 54% to 75%. In 2017, the HSS investment through micro plans is expected to maintain progress, and urban strategies will be scaled up across other main cities through planned TA.

3 Tools for country discussions on urban immunisation

3.1 Concept Note template or discussion guide for use in country dialogue

Concept Note/Discussion guide: Equity-focused urban service delivery strategy

1. Rationale* What is the case to Finance, planning departments?

- **Need:** Situational analysis: What is currently being done in urban areas and in immunisation more broadly in the Provinces? Why services to be added in this urban area? Why is prioritized over other urban areas. Reasons why current model does not reach every child
- **Impact:** Any information on the number of missed children in the area and impact of potential intervention on presence of VPDs (are there outbreaks etc.)

2. Data needed for planning and strategy development

- List of **existing** and **needed** data e.g. (Number of EPI sites, cold chain location, number of vaccinators/LHWs/CBVs etc, coverage data (UC level), population data (2017), existence of private facilities/CSOs, information on mobile and migrant populations, other social and health equity data on urban communities (DHS etc.), CBV and non CBV areas, availability of polio microplans, current maps and microplans)
- Stakeholders (Existing development partners in urban (eg sanitation, nutrition), other key partners to involve)
- Considerations for the rationalisation of existing resources

3. Analysing models of service delivery for equity-focused urban immunisation

- Considering HR (outreach and mobile), integration opportunities in primary healthcare initiatives and outsourcing of model to private entities and NGOs/CSOs

4. Monitoring plan

- Identification of baseline
- Who will monitor per the implementer?
- Who is accountable for implementation?

5. Capacities and technical assistance needs

- What are key areas for EPI capacity development to support implementation of Plan of Action (in planning and data collection and also in implementation of programme)
- What partner support is required to implement

6. Propose 3-5 indicators targets

- Coverage information for urban areas
- Process indicators for service and demand improvements in urban areas

Annex: SWOT (performed as part of exercise to develop concept note)

3.2 Sample matrix for tailoring delivery strategy

The table below is an example of group-work to consider for developing dialogue around potential service delivery strategies in urban areas focusing on unique needs of urban poor populations (e.g. public fixed sites, outreach). For priority delivery strategies, succinctly consider the implications for supply chain, health workforce, etc. Such a table could be replicated for each of the lowest level of management accountability for oversight of services (e.g. district, sub-district, and neighbourhood).

Tailored service delivery strategies for equity-focused urban immunisation						
Issues to considered	Public fixed site	Outreach and mobile sites	PIRI (Periodic intensification of RI)	Civil-Society Organisations	Private fixed site (e.g. Doctor offices, hospitals, pharmacies)	Public-Private Hybrid (e.g. government staff in private site; Gov't provides vaccines & cold chain)
Integration with Primary Health Care						
Health workforce						
Supply chain						
Demand						
Location of services to meet community needs						
Time of day/frequency of services						
Data collection						
Monitoring of services & Supervision						
Polio / EPI synergy opportunities						
Community engagement and messaging.						
Building community-links						



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